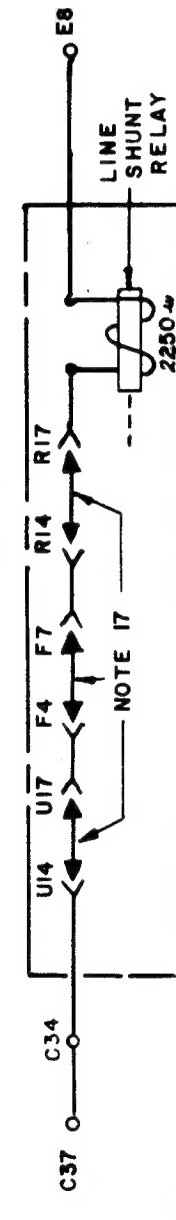
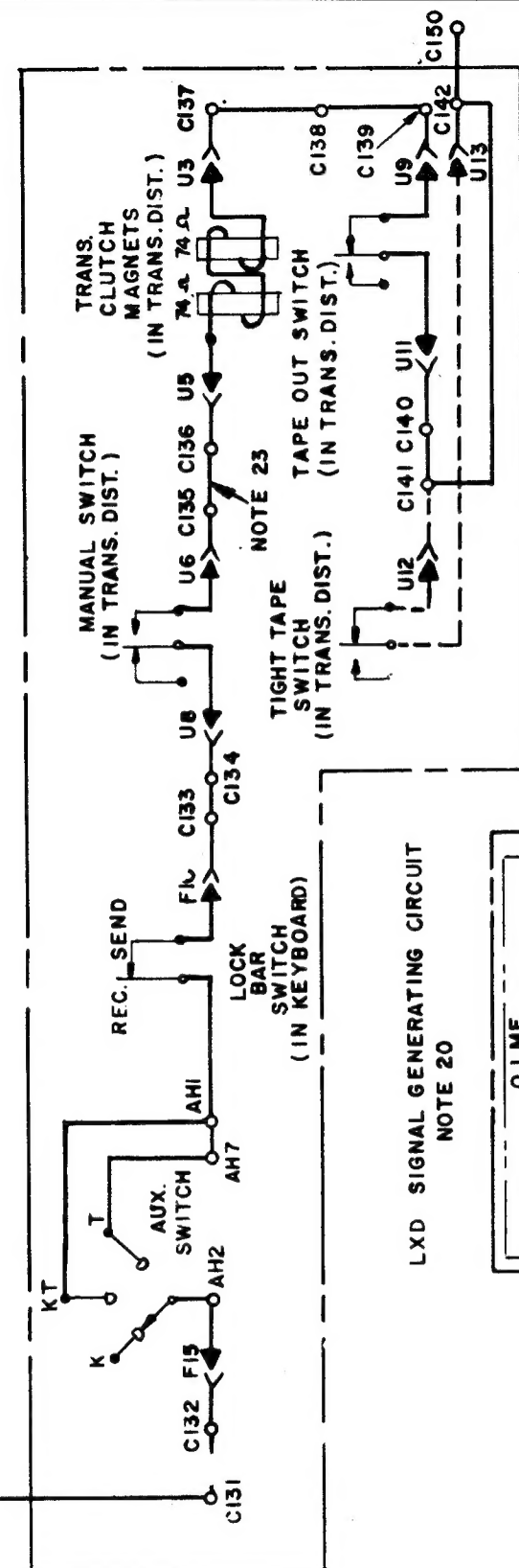


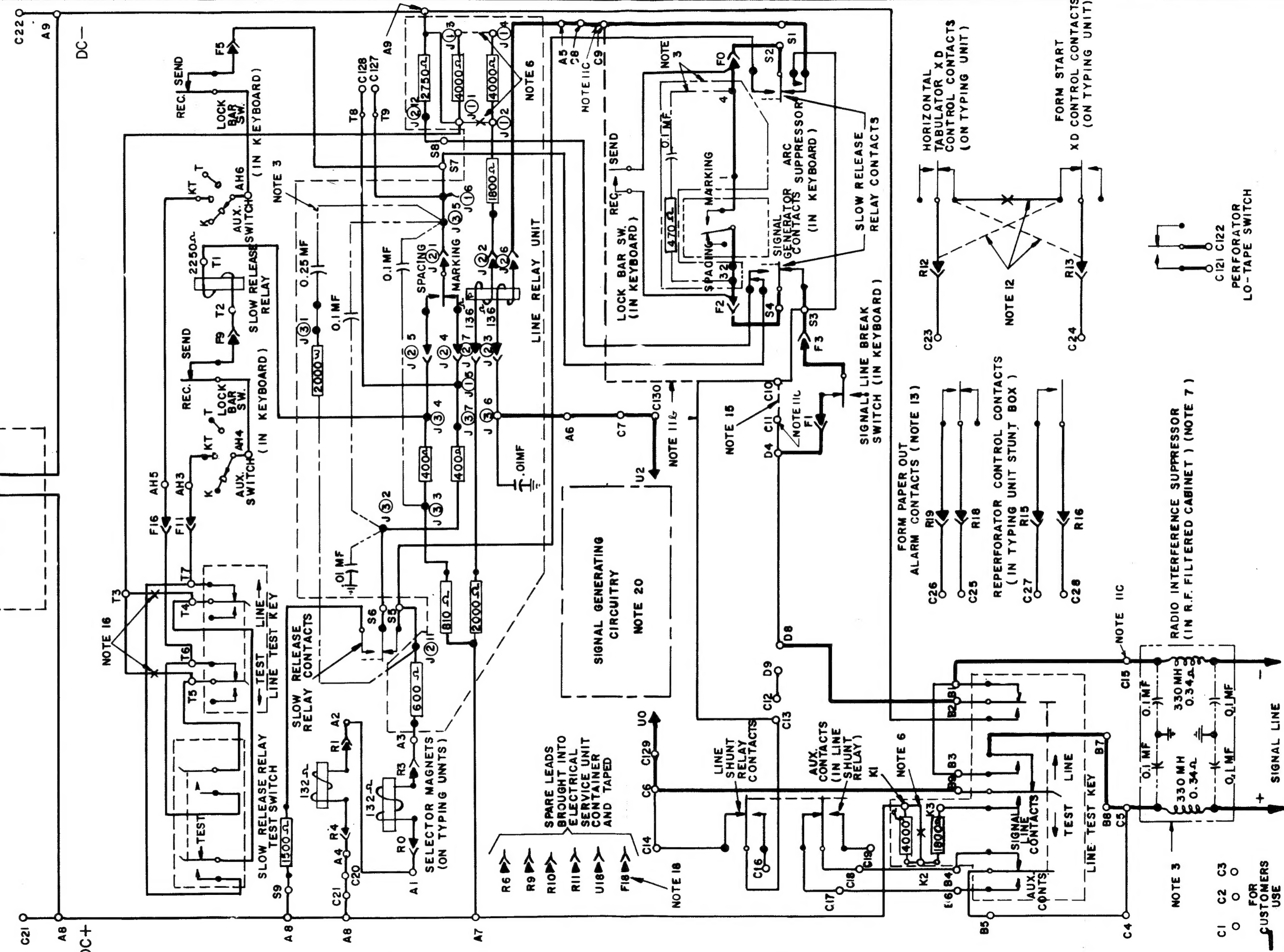
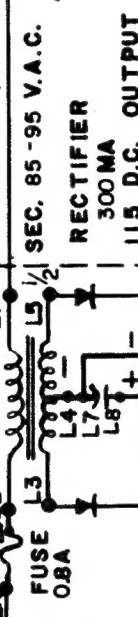
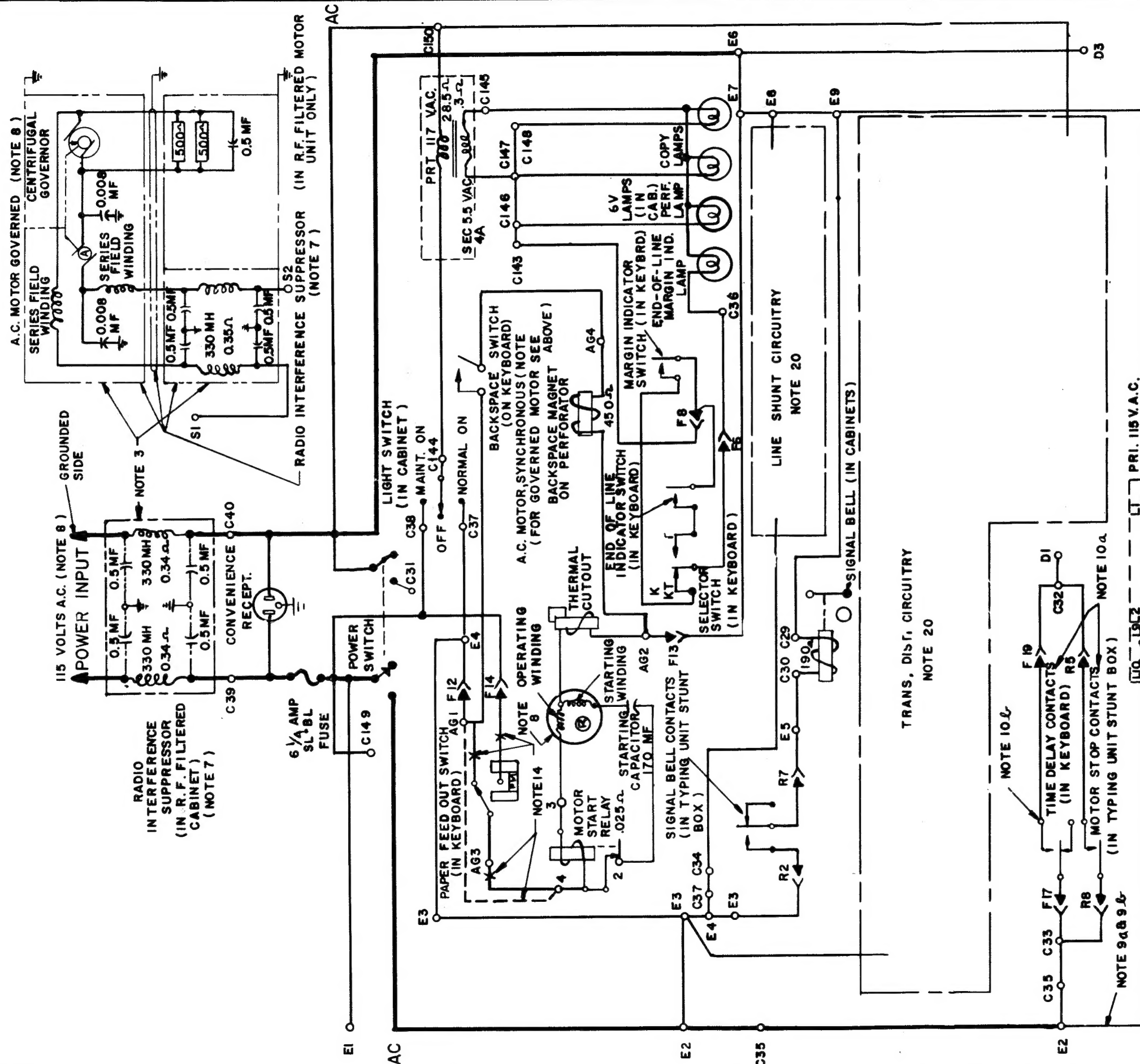
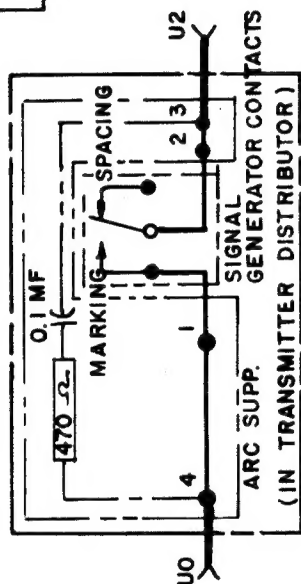
LXD LINE SHUNT CIRCUIT
NOTE 20



LXD TRANS. DIST. CIRCUIT
NOTE 20



LXD SIGNAL GENERATING CIRCUIT
NOTE 20



3298 WD			
REVISIONS			
ISSUE	DATE	AUTH. NO.	
1	3-30-60	28-12925	
2	4-27-60	28-12926	
3	3-29-61	67273	
4	3-28-62	89-6870	
5	11-26-68	78860	
6	2-11-64	79910	

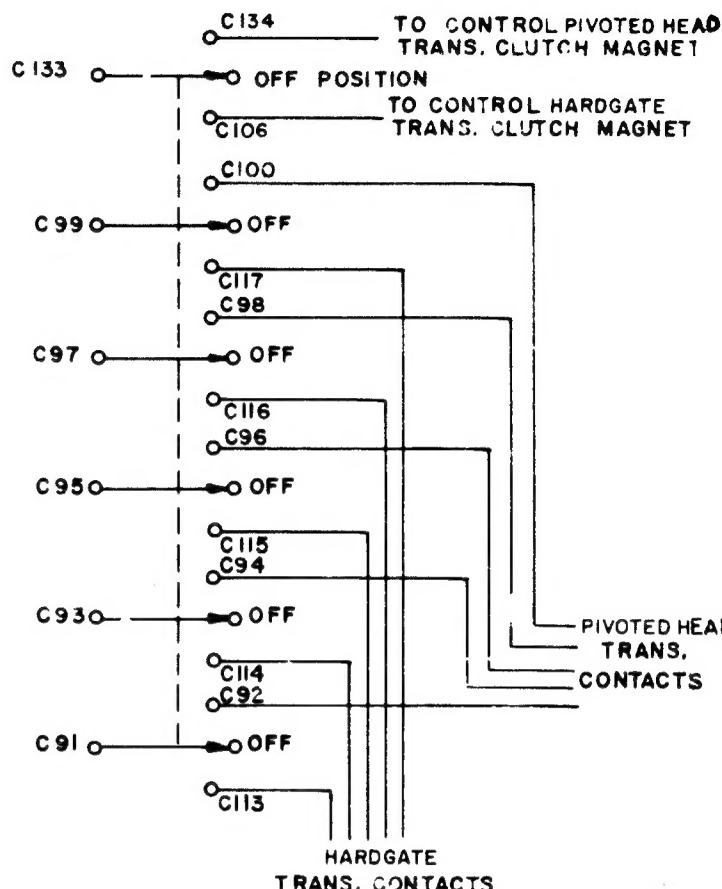
SEE SHEET 3
FOR NOTES

SHEET 1 OF 3
APPROVALS

SCHEMATIC
WIRING DIAGRAM
MODEL 28
ASR-GP-OPT II AC
WITH FACILITIES
PROVIDED BY
ELECT. SERVICE UNIT
LESU 15
AND ASSOCIATED
UNITS

E NUMBER
PROD. NO. 3298 WD
DATE: 11-17-59
P.D. FILE NO. 27-A65AA
DRAWN R.D. CHKD.
ENGD. APPD.

TELETYPE
CORPORATION
3298 WD

NO.		NOTES		NO.		NOTES		3298 WD																								
		FOR ACTUAL WIRING DIAGRAMS OF INDIVIDUAL UNITS SEE: WD NUMBER UNITS DIRECTLY OPERABLE WITH LESU				(21 CONT.) LCXD — AS PER DIAGRAM BELOW :		REVISIONS																								
1		3264 WD CABINETS—LAAC 209,210 3292 WD ELECTRICAL SERVICE UNIT LESU 15 3302 WD KEYBOARDS—LAK 4 2900WD MOTOR UNITS—LMU 12 OR 14 2864 WD PAGE TYPING UNITS—LP 3300 WD TRANSMITTER DISTRIBUTOR—LXD3 3288 WD TRANSMITTER DISTRIBUTOR—LAXD3 & LCXD1 3251 WD TRANSMITTER DISTRIBUTOR —LBXD5 3452 WD TRANSMITTER DISTRIBUTOR BASE —LCXB 7		10		a. TO OPERATE MOTOR CONTROL, SET MUST BE EQUIPPED WITH EITHER 1. TIME DELAY MECH. OR 2. MOTOR STOP CONTACTS. b. IF TAPE POSITION IS TO BE USED IN THE ASR SET THE TIME DELAY MECHANISM MUST BE EITHER ELECTRICALLY OR MECHANICALLY DISABLED.				ISSUE DATE AUTH. NO.																						
		LEGEND o A SELECTOR MAGNET TERMINAL BLOCK (IN LESU) o B LINE TEST KEY TERMINAL BLOCK (IN LESU) o C CABINET TERMINAL BLOCK o D MOTOR CONTROL TERMINAL BLOCK (IN LESU) o E POWER TERMINAL BLOCK (IN LESU) ◀ F KEYBOARD CONNECTOR o J ① TERMINAL STRIP (ON LINE RELAY ASSEM. IN LESU) ◀ J ② LINE RELAY CONNECTOR (IN LESU) ● J ③ LINE RELAY FILTER (IN LESU) o K TERMINAL STRIP (ON LINE TEST KEY IN LESU) ◀ R TYPING UNIT CONNECTOR o S SLOW RELEASE RELAY TERMINAL BOARD (IN LESU) o T TEST SWITCH TERMINAL BOARD (IN LESU) ◀ U TRANSMITTER DISTRIBUTOR CONNECTOR o AG MOTOR TERMINAL BLOCK (ON LAK) o AH AUXILIARY SWITCH TERMINAL BLOCK (ON LAK)		11		a. LINE SHUNT RELAY SHOWN SHUNTING LINE RELAY COIL, TRANS. DIST. SIG. GENERATOR AND KEYBOARD SIG. GEN.. b. IF KEYBOARD SHUNT IS NOT DESIRED MOVE STRAP FROM C10 TO C9. c. FOR DIRECT CONTROL OF LINE SHUNT RELAY FROM POWER SWITCH, ADD DASHED (-----) CONNECTIONS AND OMIT CONN. MARKED (—X—) AT CABINET TERMINALS C34, C35, C37 CUST. MAY THEN SELECT PORTION OF SIG. LINE CKT. TO BE SHUNT. BY CONNECTING TERM. C13 TO EITHER C3, C10, C11, C15.				12 2-11-64 79910																						
2		3 DOT DASH (— · —) LINES INDICATE FILTERING, SHIELDING AND SUPPRESSION NETWORKS. 4 ALL APPARATUS IS SHOWN IN UNOPERATED OR DE-ENERGIZED POSITIONS. 5 a. RESISTANCE IN OHMS (Ω) b. INDUCTANCE VALUES IN MICROHENRIES (MH) c. CAPACITANCE VALUES IN MICROFARADS (MF) 6 CIRCUITS SHOWN FOR .060 AMP. NEUTRAL SIGNAL LINE OPERATION. FOR .020 AMP. LINE CURRENT, ADD DASHED (---) CONNECTIONS AND OMIT CONNECTIONS MARKED (—X—) IN LINE TEST KEY, AND LINE RELAY CIRCUITS. 7 USE POWER & SIGNAL LINE SUPPRESSOR AND SYNC. OR GOV—FILT. MOTOR FOR INSTALLATIONS REQUIRING MINIMUM R.F. INTERFERENCE. FOR OTHER INSTALLATIONS, OMIT SUPPRESSORS AND CONNECT INPUTS AND GOV. MOTOR DIRECTLY TO TERMINALS SHOWN. 8 USE SYNCHRONOUS MOTOR ON REGULATED 60~ (±1%) A.C. POWER ONLY. GOVERNED MOTORS AND OTHER POWER CIRCUITS OPERABLE ON 50 TO 60~ UNREGULATED A.C. 9 RECTIFIER SHOWN CONTROLLED BY POWER SWITCH. FOR CONTINUOUS OPERATION, MOVE RECTIFIER LEAD L10 FROM E2 TO E1.		12		CIRCUIT SHOWS BOTH HORIZONTAL TABULATOR AND FORM START CONTROL USED ON TYPING UNIT. WHEN ONLY ONE CONTROL IS USED, OMIT CONNECTION MARKED (—X—) AND ADD PROPER DASHED (---) CONNECTION IN TYPING UNIT CIRCUITS.																										
		13 FORM PAPER OUT ALARM CONTACTS MAY BE MOUNTED ON EITHER THE TYPING UNIT OR EXTERNAL TO THE CABINET. IN LATTER EVENT, CONNECTIONS ARE MADE DIRECTLY TO TERMINALS C25 AND C26. 14 WHEN PAPER FEED SWITCH IS NOT USED, ADD DASHED (---) CONNECTIONS AND OMIT CONNECTIONS MARKED (—X—) IN MOTOR POWER CIRCUITS. 15 WHEN SIGNAL LINE BREAK SWITCH IS NOT USED IN KEYBOARD ADD DASHED (---) CONNECTION AT CABINET TERMINAL BLOCK BETWEEN C10 AND C11. 16 TO PREVENT SLOW RELEASE RELAY FROM ENERGIZING REMOVE CONNECTIONS MARKED (—X—).		13		FORM PAPER OUT ALARM CONTACTS MAY BE MOUNTED ON EITHER THE TYPING UNIT OR EXTERNAL TO THE CABINET. IN LATTER EVENT, CONNECTIONS ARE MADE DIRECTLY TO TERMINALS C25 AND C26.																										
		17 IN ALL KEYBOARDS F4 MUST BE CONNECTED TO F7 IN ALL TRANS. DIST. U14 MUST BE CONNECTED TO J17 IN ALL TYPING UNITS R14 MUST BE CONNECTED TO R17		14		WHEN PAPER FEED SWITCH IS NOT USED, ADD DASHED (---) CONNECTIONS AND OMIT CONNECTIONS MARKED (—X—) IN MOTOR POWER CIRCUITS.		22		WHEN A SEPARATE TIGHT TAPE SWITCH IS USED IN LBXD THIS SWITCH BECOMES A MANUAL ON—OFF SWITCH ONLY.																						
		18 SPARE LEADS FROM U18 AND F18 ARE RESERVED FOR POLAR OPERATION OF SIGNAL GENERATOR.		15		WHEN SIGNAL LINE BREAK SWITCH IS NOT USED IN KEYBOARD ADD DASHED (---) CONNECTION AT CABINET TERMINAL BLOCK BETWEEN C10 AND C11.		23		WHEN LXD IS USED, REMOVE THE STRAP BETWEEN TERMINALS C135—C136, ADD TWO 176162 STRAPS, ONE BETWEEN TERMINALS C23—C135 AND ONE BETWEEN C24—C136.																						
		19 CIRCUIT SHOWN FOR 115 V.D.C. POWER INPUT TO TRANS. DIST. CLUTCH MAGNETS. FOR 48 V.D.C. POWER INPUT MOVE WIRE CONNECTIONS AS FOLLOWS: <table><tr><td>UNIT</td><td>WIRE INVOLVED</td><td>MOVE CONNECTION FROM</td><td>TO</td></tr><tr><td>LAXD & LCXD</td><td>C81 TO V6</td><td>V6</td><td>V5</td></tr><tr><td></td><td>C142 TO V3</td><td>V3</td><td>V2</td></tr><tr><td>LBXD</td><td>A13 TO V6</td><td>V6</td><td>V5</td></tr><tr><td></td><td>A6 TO V3</td><td>V3</td><td>V2</td></tr></table> POWER SUPPLY MUST DELIVER 300 MA @ 48 V.D.C. OR 200 MA @ 115 V.D.C.		UNIT	WIRE INVOLVED	MOVE CONNECTION FROM	TO	LAXD & LCXD	C81 TO V6	V6	V5		C142 TO V3	V3	V2	LBXD	A13 TO V6	V6	V5		A6 TO V3	V3	V2	16		TO PREVENT SLOW RELEASE RELAY FROM ENERGIZING REMOVE CONNECTIONS MARKED (—X—).		24		TO CONTROL PIVOTED READER FROM ITS TAPE OUT CONTACTS, REMOVE THE STRAP FROM TERMINALS 137 TO 141 AND PROVIDE SUITABLE CIRCUITRY. THE TAPE OUT CONTACTS MAY NOT BE USED DIRECTLY SINCE THEY OPEN MOMENTARILY.		
UNIT	WIRE INVOLVED	MOVE CONNECTION FROM	TO																													
LAXD & LCXD	C81 TO V6	V6	V5																													
	C142 TO V3	V3	V2																													
LBXD	A13 TO V6	V6	V5																													
	A6 TO V3	V3	V2																													
		20 USE APPROPRIATELY LABELED LXD, LAXD, LBXD OR LCXD CIRCUITRY AND MAKE CONNECTIONS AS SHOWN.		17		IN ALL KEYBOARDS F4 MUST BE CONNECTED TO F7 IN ALL TRANS. DIST. U14 MUST BE CONNECTED TO J17 IN ALL TYPING UNITS R14 MUST BE CONNECTED TO R17																										
		21 CUSTOMER MUST SUPPLY EXTERNAL SWITCHING AS FOLLOWS: LXD — NONE LAXD — BETWEEN C133 AND C134 TO CONTROL TRANS. CLUTCH MAGNET. LBXD — NONE (CONTINUED)		18		SPARE LEADS FROM U18 AND F18 ARE RESERVED FOR POLAR OPERATION OF SIGNAL GENERATOR.																										
				19		CIRCUIT SHOWN FOR 115 V.D.C. POWER INPUT TO TRANS. DIST. CLUTCH MAGNETS. FOR 48 V.D.C. POWER INPUT MOVE WIRE CONNECTIONS AS FOLLOWS: <table><tr><td>UNIT</td><td>WIRE INVOLVED</td><td>MOVE CONNECTION FROM</td><td>TO</td></tr><tr><td>LAXD & LCXD</td><td>C81 TO V6</td><td>V6</td><td>V5</td></tr><tr><td></td><td>C142 TO V3</td><td>V3</td><td>V2</td></tr><tr><td>LBXD</td><td>A13 TO V6</td><td>V6</td><td>V5</td></tr><tr><td></td><td>A6 TO V3</td><td>V3</td><td>V2</td></tr></table> POWER SUPPLY MUST DELIVER 300 MA @ 48 V.D.C. OR 200 MA @ 115 V.D.C.		UNIT	WIRE INVOLVED	MOVE CONNECTION FROM	TO	LAXD & LCXD	C81 TO V6	V6	V5		C142 TO V3	V3	V2	LBXD	A13 TO V6	V6	V5		A6 TO V3	V3	V2					
UNIT	WIRE INVOLVED	MOVE CONNECTION FROM	TO																													
LAXD & LCXD	C81 TO V6	V6	V5																													
	C142 TO V3	V3	V2																													
LBXD	A13 TO V6	V6	V5																													
	A6 TO V3	V3	V2																													
				20		USE APPROPRIATELY LABELED LXD, LAXD, LBXD OR LCXD CIRCUITRY AND MAKE CONNECTIONS AS SHOWN.																										
				21		CUSTOMER MUST SUPPLY EXTERNAL SWITCHING AS FOLLOWS: LXD — NONE LAXD — BETWEEN C133 AND C134 TO CONTROL TRANS. CLUTCH MAGNET. LBXD — NONE (CONTINUED)																										
										SHEET 3 OF 3																						
										SCHEMATIC WIRING DIAGRAM MODEL 28 ASR - GP- OPT II AC WITH FACILITIES PROVIDED BY ELECT. SERVICE UNIT LESU 15 AND ASSOCIATED UNITS																						
										TELETYPE CORPORATION																						
										3298 WD																						

3298 WD

REVISIONS

ISSUE	DATE	AUTH. NO.
12	2-11-64	79910

SHEET 3 OF 3

SCHEMATIC
WIRING DIAGRAM
MODEL 28
ASR—GP—OPT II AC
WITH FACILITIES
PROVIDED BY
ELECT. SERVICE UNIT
LESU 15
AND ASSOCIATED
UNITS

TELETYPE
CORPORATION

3298 WD

RTTY ELECTRONICS
TELETYPE—Sales—Service—Parts
PO Box 20101 El Sobrante, Ca.
94820 (510) 222-3102
rtty@pacbell.net